(3D) Body Processing
Industry Connections Activity Initiation Document (ICAID)
Version: 2.0, 04 December 2017
IC15-004-02 Approved by the IEEE-SASB 6 December 2017

Instructions

- Instructions on how to fill out this form are shown in red. It is recommended to leave the instructions in the final document and simply add the requested information where indicated.
- Shaded Text indicates a placeholder that should be replaced with information specific to this ICAID, and the shading removed.
- Completed forms, in Word format, or any questions should be sent to the IEEE Standards Association (IEEE-SA) Industry Connections Committee (ICCom) Administrator at the following address: industryconnections@ieee.org.
- The version number above, along with the date, may be used by the submitter to distinguish successive updates of this document. A separate, unique Industry Connections (IC) Activity Number will be assigned when the document is submitted to the ICCom Administrator.

1. Contact
Provide the name and contact information of the primary contact person for this IC activity. Affiliation is any entity that provides the person financial or other substantive support, for which the person may feel an obligation. If necessary, a second/alternate contact person’s information may also be provided.

Name: Luciano C. Oviedo
Email Address: luciano.c.oviedo@intel.com
Phone: Phone
Employer: Intel Corporation
Affiliation: Intel Corporation

Name: Carol McDonald
Email Address: carol@gneissconcept.com
Phone: Phone
Employer: Gneiss Concept
Affiliation: Gneiss Concept

2. Participation and Voting Model
Specify whether this activity will be entity-based (participants are entities, which may have multiple representatives, one-entity-one-vote), or individual-based (participants represent themselves, one-person-one-vote).

Specify: “Entity-Based”
3. Purpose

3.1. Motivation and Goal
Briefly explain the context and motivation for starting this IC activity, and the overall purpose or goal to be accomplished.

Describe the motivation and goal.
- To enable a seamless and secure pipeline of deliberate sensing, capturing, digitizing, sharing and immersion of data-based, body model and body wear experiences...anywhere, anytime (ie, data-sumer), to create an ecosystem;
- Key elements may include ... confidentiality, integrity, availability, flexibility to digitize human for any solution, static, dynamic, more TBD
- This exploration will include:
  - Identify and classify types of 3D body processing technologies;
  - Identify and classify use cases of 3D body processing;
  - Identify gaps in existing nascent standards and recommended practices as 3D body processing spreads beyond first adopters;
  - Identify need and propose PARs for new standards and best practices for 3D body processing and adjacent technologies (like 2D augmented reality, Web3D, Motion Capture);
  - Identity special requirements for quality, file formats, footwear, communications/security/privacy, and mega technologies impact

3.2. Related Work
Provide a brief comparison of this activity to existing, related efforts or standards of which you are aware (industry associations, consortia, standardization activities, etc.).

Describe the related work.
- There are a variety of standards efforts around 2D augmented reality that include 2D human modeling but none that we know of for 3D body characterization, modeling and processing;

3.3. Previously Published Material
Provide a list of any known previously published material intended for inclusion in the proposed deliverables of this activity.

List the previously published material, if any.
- White paper #1: IEEE Industry connections, 3D Body Model Processing Initiative, An Introduction
- Second white paper scheduled for December 2017 completion
3.4. **Potential Markets Served**

Indicate the main beneficiaries of this work, and what the potential impact might be.

**Describe the potential markets.**
- There are several potential markets where standards related to 3D body processing will add value:
  - Consumers in
    - Fashion
    - Retail
    - Health/wellness
    - Athletics
    - Etc.
  - Suppliers at various layers
    - User-facing/product offering Supplier
    - Platform Suppliers
    - Application Software Suppliers
    - Operating System Suppliers
    - Application Processor Suppliers
    - Etc.

4. **Estimated Timeframe**

Indicate approximately how long you expect this activity to operate to achieve its proposed results (e.g., time to completion of all deliverables).

**Expected Completion Date:** Q4/2019

IC activities are chartered for two years at a time. Activities are eligible for extension upon request and review by ICCom and the IEEE-SA Standards Board. Should an extension be required, please notify the ICCom Administrator prior to the two-year mark.

5. **Proposed Deliverables**

Outline the anticipated deliverables and output from this IC activity, such as documents (e.g., white papers, reports), proposals for standards, conferences and workshops, databases, computer code, etc., and indicate the expected timeframe for each.

**Specify the deliverables for this IC activity.**

Deliverables for this activity include:
- Sub-group reports on Quality, File Formats, Footwear, Communications/Security/Privacy, and Mega Technologies Impact
- White papers - Standard reviews, Industry questionnaires
- Mktg collateral (ie, CES press release, Logos/Poster, Grand Challenges))
- Quarterly Meetings/Workshops;
- Documents outlining agreed upon industry requirements for standards
- Proposal for standard(s) (e.g. P3141) on 3D body processing;
- Liaisons/Collaborations with ISO, Web 3D, 3DRC
- IEEE webpage with supporting sub pages
6. Funding Requirements
Outline any contracted services or other expenses that are currently anticipated, beyond the basic support services provided to all IC activities. Indicate how those funds are expected to be obtained (e.g., through participant fees, sponsorships, government or other grants, etc.). Activities needing substantial funding may require additional reviews and approvals beyond ICCom.

No additional funding requests are anticipated for services beyond the standard services provided for IC programs. Activity members will provide any needed support for hosted meetings, marketing activities that exceed basic IC support.

Examples include:

- Quarterly F2F activity meetings (time/locations TBD) – activity members will be solicited to host/sponsor any in person meetings at their company facilities or other industry events

- Marketing support beyond that provided by IEEE-SA – activity members will coordinate with IEEE for any additional marketing initiatives in support of the IC activity – examples envisioned include:
  - Consumer Electronic Show marketing package (press release, media event, demo, keynote, etc.)
  - Others industry channels (ie, 3D Body Tech, PI Apparel, keynote, etc.)
  - Workshops

7. Management and Procedures

7.1. IEEE Sponsoring Committee
Indicate whether an IEEE sponsoring committee of some form (e.g., an IEEE Standards Sponsor) has agreed to oversee this activity and its procedures.

Has an IEEE sponsoring committee agreed to oversee this activity?: Yes

If yes, indicate the sponsoring committee’s name and its chair’s contact information.

Sponsoring Committee Name: IEEE Digital Senses Initiative (DSI)
Sponsoring Committee Chair’s Name: Yu Yuan
Sponsoring Committee Chair’s Email Address: y.yuan@ieee.org
Sponsoring Committee Chair’s Phone: +1 917 624 8316

Additional sponsoring committee information, if any.

7.2. Activity Management
If no IEEE sponsoring committee has been identified in 7.1 above, indicate how this activity will manage itself on a day-to-day basis (e.g., executive committee, officers, etc).

Briefly outline activity management structure.
The activity will be managed by an executive committee as defined in the activity’s policies and procedures.

### 7.3. Procedures
Indicate what documented procedures will be used to guide the operations of this activity; either a) modified baseline *Industry Connections Activity Policies and Procedures*, or b) Sponsor or Working Group policies and procedures accepted by the IEEE-SA Standards Board. The chosen policies and procedures must be reviewed by ICCom.

Will use the baseline Industry Connections Activity Policies and Procedures.

### 8. Participants

#### 8.1. Stakeholder Communities
Indicate the stakeholder communities (the types of companies or other entities, or the different groups of individuals) that are expected to be interested in this IC activity, and will be invited to participate.

See section 3.4

#### 8.2. Expected Number of Participants
Indicate the approximate number of entities (if entity-based) or individuals (if individual-based) expected to be actively involved in this activity.

We have approximately 25 entities across the ecosystem currently involved, see section 8.3 for a detailed listing. Engagement with the 3D Retail Coalition planned for 2018 is expected to expand the participation further.

#### 8.3. Current Participants
Provide a list of the entities or individuals that will be participating from the outset. It is recommended there be at least three initial participants for an entity-based activity, or five initial participants (each with a different affiliation) for an individual-based activity.

Use the following table for an entity-based activity:

The following table provides a list of current participants. We are actively reaching out to companies and universities and expect more to join us, for example, outreach at the recent 3D Body Tech conference yielded requests for information and/or participation from the following:

- Google, Nike, Life Fitness, Under Armour, Elasizer, P&G, Pacific Northwest National Labs, and Lululemon
- Concordia University, Shenzhehen University, Juangan University, The University of Manchester, University of Texas, Warsaw University of Technology, and University of Quebec at Montreal
- Software Tailoring, Citec, Perfity, 3D Body Cloud, Shenzhen Esun Display, Mojito 3D Studio, Mirage, NetVirta, Spiral Therapy, Cryos, Staramba GmbH,
Man3, Stefanka, Fashion Should Empower, entreDovovan, Tech Med 3D, Spiral Physical Therapy, Bodi.me, Bodidata, Decathlon

<table>
<thead>
<tr>
<th>Entity Name</th>
<th>Contact Name</th>
<th>Primary Contact</th>
<th>Email Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intel Corporation</td>
<td>Luciano Oviedo,</td>
<td><a href="mailto:Luciano.C.Oviedo@intel.com">Luciano.C.Oviedo@intel.com</a></td>
<td></td>
</tr>
<tr>
<td>Gneiss Concept</td>
<td>Carol McDonald</td>
<td><a href="mailto:carol@gneissconcept.com">carol@gneissconcept.com</a></td>
<td></td>
</tr>
<tr>
<td>Biomechanics Institute of Valencia- UPV</td>
<td>Alfredo Ballester,</td>
<td><a href="mailto:alfredo.ballester@ibv.upv.es">alfredo.ballester@ibv.upv.es</a></td>
<td>Sandra Alemany, <a href="mailto:sandra.alemany@ibv.upv.es">sandra.alemany@ibv.upv.es</a> Juan Carlos Gonzalez, <a href="mailto:JuanCarlos.gonzalez@ibv.upv.es">JuanCarlos.gonzalez@ibv.upv.es</a></td>
</tr>
<tr>
<td>Bauerfeind</td>
<td>Henricus Fluthgraf,</td>
<td><a href="mailto:Henricus.fluthgraf@bauerfeind.com">Henricus.fluthgraf@bauerfeind.com</a></td>
<td></td>
</tr>
<tr>
<td>Texel</td>
<td>Maxim Feyukov</td>
<td><a href="mailto:maxim.fedyukov@gmail.com">maxim.fedyukov@gmail.com</a></td>
<td>Joe Dixon, <a href="mailto:jdixon@sizestream.com">jdixon@sizestream.com</a></td>
</tr>
<tr>
<td>Sizestream</td>
<td>David Bruner,</td>
<td><a href="mailto:dbruner@sizestream.com">dbruner@sizestream.com</a></td>
<td></td>
</tr>
<tr>
<td>Target</td>
<td>Julianne Harris,</td>
<td><a href="mailto:julianne.harris@target.com">julianne.harris@target.com</a></td>
<td>Alexis Kantor, <a href="mailto:alexis.kantor@target.com">alexis.kantor@target.com</a> Sandra Gagnon, <a href="mailto:Sandra.gagnon@target.com">Sandra.gagnon@target.com</a></td>
</tr>
<tr>
<td>National Institute of Advanced Industrial Science and Technology (AIST)</td>
<td>Masaaki Mochimaru,</td>
<td><a href="mailto:m-mochimaru@aist.go.jp">m-mochimaru@aist.go.jp</a></td>
<td>Makiko Kouchi, <a href="mailto:m-kouchi@aist.go.jp">m-kouchi@aist.go.jp</a></td>
</tr>
<tr>
<td>TrueFit</td>
<td>Amory Wakefield,</td>
<td><a href="mailto:awakefield@truefit.com">awakefield@truefit.com</a></td>
<td></td>
</tr>
<tr>
<td>Zelusfx</td>
<td>Dongsoo Han,</td>
<td><a href="mailto:dhan@zelusfx.com">dhan@zelusfx.com</a></td>
<td></td>
</tr>
<tr>
<td>Silverdraft</td>
<td>Randy Rannow,</td>
<td><a href="mailto:randy@silverdraft.com">randy@silverdraft.com</a></td>
<td></td>
</tr>
<tr>
<td>Web3D WG co-chair</td>
<td>William Glascoe III,</td>
<td><a href="mailto:eosocxo@comcast.net">eosocxo@comcast.net</a></td>
<td></td>
</tr>
<tr>
<td>Columbia</td>
<td>Tim Devlin,</td>
<td><a href="mailto:tdevlin@columbia.com">tdevlin@columbia.com</a></td>
<td>Sean Lane, <a href="mailto:slane@columbia.com">slane@columbia.com</a></td>
</tr>
<tr>
<td>Metail</td>
<td>Yannis Douros,</td>
<td><a href="mailto:yannis@metail.co.uk">yannis@metail.co.uk</a></td>
<td></td>
</tr>
<tr>
<td>Human Solutions</td>
<td>Tim Guenzel</td>
<td><a href="mailto:tim.guenzel@human-solutions.com">tim.guenzel@human-solutions.com</a></td>
<td></td>
</tr>
<tr>
<td>Company</td>
<td>Contact Name</td>
<td>Email/Website</td>
<td></td>
</tr>
<tr>
<td>------------------------</td>
<td>-----------------------------------</td>
<td>--------------------------------------</td>
<td></td>
</tr>
<tr>
<td>ELSE Corp</td>
<td>Andrey Golub</td>
<td><a href="mailto:a.golub@else-corp.it">a.golub@else-corp.it</a></td>
<td></td>
</tr>
<tr>
<td>Avametric</td>
<td>James O-Brien,</td>
<td><a href="mailto:job@avametric.com">job@avametric.com</a></td>
<td></td>
</tr>
<tr>
<td>Quantacorp</td>
<td>Wim Devos,</td>
<td><a href="mailto:wim@quantacorp.io">wim@quantacorp.io</a></td>
<td></td>
</tr>
<tr>
<td>Kansas State University</td>
<td>Yingying Wu,</td>
<td><a href="mailto:Yingyingwu9@ksu.edu">Yingyingwu9@ksu.edu</a></td>
<td></td>
</tr>
<tr>
<td>Gerber Technology</td>
<td>Amit Kumar,</td>
<td><a href="mailto:Amit.kumar@gerbertechnology.com">Amit.kumar@gerbertechnology.com</a></td>
<td></td>
</tr>
<tr>
<td>Anthrotech.net</td>
<td>Bruce Bradtmiller,</td>
<td><a href="mailto:bruce@anthrotech.net">bruce@anthrotech.net</a></td>
<td></td>
</tr>
<tr>
<td>3DMD</td>
<td>Chris Lane</td>
<td><a href="mailto:clane@3dmd.com">clane@3dmd.com</a></td>
<td></td>
</tr>
<tr>
<td>CLO Virtual Fashion</td>
<td>Sean Inyong Jeon,</td>
<td><a href="mailto:sean@clo3D.com">sean@clo3D.com</a></td>
<td></td>
</tr>
<tr>
<td>Dresscode A.I.</td>
<td>Eugene Karpov,</td>
<td><a href="mailto:ek@dresscode.ai">ek@dresscode.ai</a></td>
<td></td>
</tr>
</tbody>
</table>